

WHAT IS CLAIMED IS:

1 1. A composition comprising a monopotassium salt of cyclodextrin-6^A-
2 monophosphate.

1 2. The composition of claim 1, wherein the monopotassium salt of
2 cyclodextrin-6^A-phosphate is selected from the group consisting of monopotassium α -
3 cyclodextrin-6^A-monophosphate, monopotassium β -cyclodextrin-6^A-monophosphate,
4 monopotassium γ -cyclodextrin-6^A-monophosphate and mixtures thereof.

1 3. A composition comprising a monopotassium salt of cyclodextrin-6^A-
2 monosuccinylate.

1 4. The composition of claim 3, wherein the monopotassium salt of
2 cyclodextrin-6^A-monosuccinylate is selected from the group consisting of monopotassium
3 acyclodextrin-6^A-monosuccinylate, monopotassium β -cyclodextrin-6^A-monosuccinylate,
4 monopotassium γ -cyclodextrin-6^A-monosuccinylate and mixtures thereof.

1 5. A growth medium for plant cell or tissue cultures comprising at least
2 one charged cyclodextrin.

1 6. The growth medium of claim 5, wherein at least one charged
2 cyclodextrin is selected from the group consisting of the monopotassium salt of cyclodextrin-
3 6^A-monophosphate, monopotassium α -cyclodextrin-6^A-monophosphate, monopotassium β -
4 cyclodextrin-6^A-monophosphate, monopotassium γ -cyclodextrin-6^A-monophosphate,
5 monoammonium salt of cyclodextrin-6^A-monophosphate, monoammonium α -cyclodextrin-
6 6^A-monophosphate, monoammonium β -cyclodextrin-6^A-monophosphate, monoammonium γ -
7 cyclodextrin-6^A-monophosphate, monopotassium salt of cyclodextrin-6^A-monosuccinylate,
8 monopotassium α -cyclodextrin-6^A-monosuccinylate, monopotassium β -cyclodextrin-6^A-
9 monosuccinylate, monopotassium γ -cyclodextrin-6^A-monosuccinylate, monoammonium salt
10 of cyclodextrin-6^A-monosuccinylate, monoammonium α -cyclodextrin-6^A-monosuccinylate,
11 monoammonium β -cyclodextrin-6^A-monosuccinylate, monoammonium γ -cyclodextrin-6^A-
12 monosuccinylate, 6^A-deoxy-6^A-ammonium- α -cyclodextrin nitrate, 6^A-deoxy-6^A-ammonium- β -
13 cyclodextrin nitrate, 6^A-deoxy-6^A-ammonium- γ -cyclodextrin nitrate, 6^A-deoxy-6^A-
14 ammonium- α -cyclodextrin sulfate, 6^A-deoxy-6^A-ammonium- β -cyclodextrin sulfate, 6^A-
15 deoxy-6^A-ammonium- γ -cyclodextrin sulfate, 6^A-deoxy-6^A-ammonium- α -cyclodextrin

16 phosphate, 6^A-deoxy-6^A-ammonium- β -cyclodextrin phosphate, 6^A-deoxy-6^A-ammonium- γ -
17 cyclodextrin phosphate and mixtures thereof.

1 7. The growth medium of claim 5, further comprising compounds
2 selected from the group consisting of α -cyclodextrin, β -cyclodextrin, γ -cyclodextrin, their
3 non-ionic derivatives and mixtures thereof, the derivatives containing substituents at
4 positions 2, 3, and 6 of the glucose residues.

1 8. The growth medium of claim 7, wherein the substituents are selected
2 from the group consisting of hydroxypropyl groups, alkyl, acyl, alkylsulphonyl, and mixtures
3 thereof.

1 9. A method of growing plant cell or tissue cultures comprising
2 contacting plant cell or tissue cultures from the genus *taxus* with a growth medium
3 comprising at least one charged cyclodextrin.

1 10. The method of claim 9, wherein the charged cyclodextrin is selected
2 from the group consisting of the monopotassium salt of cyclodextrin-6^A-monophosphate,
3 monopotassium α -cyclodextrin-6^A-monophosphate, monopotassium β -cyclodextrin-6^A-
4 monophosphate, monopotassium γ -cyclodextrin-6^A-monophosphate, monoammonium salt of
5 cyclodextrin-6^A-monophosphate, monoammonium α -cyclodextrin-6^A-monophosphate,
6 monoammonium β -cyclodextrin-6^A-monophosphate, monoammonium γ -cyclodextrin-6^A-
7 monophosphate, monopotassium salt of cyclodextrin-6^A-monosuccinylate, monopotassium α -
8 cyclodextrin-6^A-monosuccinylate, monopotassium β -cyclodextrin-6^A-monosuccinylate,
9 monopotassium γ -cyclodextrin-6^A-monosuccinylate, monoammonium salt of cyclodextrin-
10 6^A-monosuccinylate, monoammonium α -cyclodextrin-6^A-monosuccinylate, monoammonium
11 β -cyclodextrin-6^A-monosuccinylate, monoammonium- γ -cyclodextrin-6^A-monosuccinylate,
12 6^A-deoxy-6^A-ammonium- α -cyclodextrin nitrate, 6^A-deoxy-6^A-ammonium- β -cyclodextrin
13 nitrate, 6^A-deoxy-6^A-ammonium- γ -cyclodextrin nitrate, 6^A-deoxy-6^A-ammonium- α -
14 cyclodextrin sulfate, 6^A-deoxy-6^A-ammonium- β -cyclodextrin sulfate, 6^A-deoxy-6^A-
15 ammonium- γ -cyclodextrin sulfate, 6^A-deoxy-6^A-ammonium- α -cyclodextrin phosphate, 6^A-
16 deoxy-6^A-ammonium- β -cyclodextrin phosphate, 6^A-deoxy-6^A-ammonium- γ -cyclodextrin
17 phosphate and mixtures thereof.

1 11. The method of claim 9, further comprising contacting plant cell or
2 tissue cultures from the genus *taxus* with a growth medium further comprising compounds

3 selected from the group consisting of α -cyclodextrin, β -cyclodextrin, γ -cyclodextrin, their
4 non-ionic derivatives and mixtures thereof, the derivatives containing substituents at
5 positions 2, 3, and 6 of the glucose residues.

1 12. The method of claim 11, wherein the substituents are selected from the
2 group consisting of hydroxypropyl groups, alkyl, acyl, alkylsulphonyl, and mixtures thereof.

1 13. A method of isolating hydrophobic compounds produced by plant cell
2 or tissue cultures, the plant cell or tissue cultures growing in cyclodextrin containing media,
3 the method comprising separating a cyclodextrin complex with at least one hydrophobic
4 compound by size exclusion chromatography, followed by dissociating of the at least one
5 cyclodextrin complex.

1 14. The method of claim 13, wherein the at least one hydrophobic
2 compound is secreted by a plant cell into extracellular media.

1 15. The method of claim 13, wherein the at least one hydrophobic
2 compound is a bioactive taxane.

1 16. The method of claim 15, wherein the bioactive taxane is taxol.

1 17. A composition comprising a salt of a cationic cyclodextrin of a plant
2 nutrient.

1 18. The composition of claim 17, wherein the plant nutrient is selected
2 from the group consisting of nitrate, sulfate, phosphate, and mixtures thereof.

1 19. The composition of claim 17, wherein the cationic cyclodextrin is
2 selected from the group consisting of ammonium cyclodextrin, alkylammonium cyclodextrin,
3 and mixtures thereof.

1 20. A composition of matter, comprising a dipotassium salt of
2 cyclodextrin-6-bisphosphate.

1 21. The composition of claim 20, wherein the dipotassium salt of
2 cyclodextrin-6-bisphosphate is selected from the group consisting of dipotassium salt of α -
3 cyclodextrin-6-bisphosphate, dipotassium salt of β -cyclodextrin-6-bisphosphate, dipotassium
4 salt of γ -cyclodextrin-6-bisphosphate and mixtures thereof.